Amendments to the Claims:

1. (Currently amended) An apparatus for measuring strain, comprising:

a semiconductor film and an adjacent metal shunt forming an interface therebetween;

wherein a strain induced at least at the interface changes a resistance at the interface; and

the interface is located along adjacent side walls of the semiconductor film and the adjacent metal shunt.

2. (Original) The apparatus of claim 1, wherein:

the induced strain comprises a tensile strain.

3. (Original) The apparatus of claim 1, wherein:

the induced strain comprises a compressive strain.

4. (Original) The apparatus of claim 1, wherein:

the interface comprises a resistive interface.

5. (Original) The apparatus of claim 1, wherein:

the interface comprises a Schottky interface.

6. (Original) The apparatus of claim 1, wherein:

the semiconductor film comprises an n-type thin film with a thickness of approximately one to ten microns.

7. (Original) The apparatus of claim 1, wherein:

the semiconductor film comprises Indium Antimonide.

8. (Original) The apparatus of claim 1, wherein:

the metal shunt comprises gold.

9. (Original) The apparatus of claim 1, further comprising:

a flexible membrane on which the semiconductor film and metal shunt are carried.

10. (Original) The apparatus of claim 9, further comprising:

a frame to which the flexible membrane is attached.

11. (Original) The apparatus of claim 1, further comprising:

a semi-insulating substrate on which the semiconductor film and metal shunt are grown.

12. (Currently amended) The apparatus of claim 1, wherein:

a plate structure is formed by the semiconductor film and the metal shunt ~~are provided in a plate structure having a substantially rectangular geometry and characterized by a filling factor of approximately 9/16~~ in which the semiconductor film and metal shunt extend laterally away from the interface.

13. (Original) The apparatus of claim 1, further comprising:

a control for obtaining a measurement indicative of the change in the resistance of the interface by applying a constant current to the semiconductor film and the metal shunt to induce a voltage therein, and measuring a change in the voltage that is indicative of the change in the resistance.

14. (Original) The apparatus of claim 13, wherein:

the control determines at least one of a pressure and temperature based on the obtained measurement.

15. (Original) The apparatus of claim 14, further comprising:

a memory for storing calibration data;

wherein the control accesses the calibration data for use in determining the at least one of a pressure and temperature.

16. (Original) The apparatus of claim 1, wherein:

the strain is induced in a direction substantially parallel to a length of the interface.

17. (Currently amended) The apparatus of claim 12 ~~1~~, wherein:

heights of the semiconductor film and metal shunt in the plate structure are substantially equal.

18. (Currently amended) A method for measuring strain, comprising:

applying a constant current to a hybrid semiconductor device comprising a semiconductor film and an adjacent metal shunt forming an interface therebetween, wherein the interface is located along adjacent side walls of the semiconductor film and the adjacent metal shunt, to induce a voltage in the hybrid semiconductor device;

inducing a strain at least at the interface to change a resistance at the interface; and

measuring a change in the voltage that is indicative of the change in the resistance.

Claims 19-22. (Cancelled)

23. (New) The apparatus of claim 1, further comprising:

contacts arranged on the semiconductor film for applying a current to the semiconductor film and the adjacent metal shunt, and for measuring a change in an induced voltage that is indicative of a change in a resistance at the interface.

24. (New) The apparatus of claim 23, wherein:

the contacts are arranged on a side wall of the semiconductor film opposite to the interface.

25. (New) The apparatus of claim 11, wherein:

the semiconductor film comprises a mesa grown on the semi-insulating substrate.

26. (New) The apparatus of claim 12, wherein:

the plate structure has a filling factor of approximately 9/16.

27. (New) The apparatus of claim 1, wherein:

a filling factor is approximately 9/16.

28. (New) An apparatus for measuring strain, comprising:

a semiconductor film and an adjacent metal shunt forming an interface therebetween;

wherein a strain induced at least at the interface changes a resistance at the interface; and

the semiconductor film comprises Indium Antimonide.

29. (New) An apparatus for measuring strain, comprising:

a semiconductor film and an adjacent metal shunt forming an interface therebetween;

wherein a strain induced at least at the interface changes a resistance at the interface; and

a plate structure is formed by the semiconductor film and the metal shunt in which the semiconductor film and metal shunt extend laterally away from the interface.

30. (New) An apparatus for measuring strain, comprising:

a semiconductor film and an adjacent metal shunt forming an interface therebetween;

wherein a strain induced at least at the interface changes a resistance at the interface; and

contacts arranged on the semiconductor film for applying a current to the semiconductor film and the adjacent metal shunt, and for measuring a change in an induced voltage that is indicative of a change in a resistance at the interface.

31. (New) The apparatus of claim 30, wherein:

the contacts are arranged on a side wall of the semiconductor film opposite to the interface.

32. (New) An apparatus for measuring strain, comprising:

a semiconductor film and an adjacent metal shunt forming an interface therebetween;

wherein a strain induced at least at the interface changes a resistance at the interface; and the semiconductor film comprises a mesa grown on the semi-insulating substrate.

33. (New) An apparatus for measuring strain, comprising:
a semiconductor film and an adjacent metal shunt forming an interface therebetween;
wherein a strain induced at least at the interface changes a resistance at the interface; and
a filling factor is approximately 9/16.

34. (New) An apparatus for measuring strain, comprising:
an inhomogeneous semiconductor film and an adjacent metal shunt forming an interface therebetween;
wherein a strain induced at least at the interface changes a resistance at the interface.

35. (New) The apparatus of claim 34, wherein:
the strain causes an extraordinary piezoconductance in the apparatus.

36. (New) The apparatus of claim 34, wherein:
the inhomogeneous semiconductor film comprises Indium Antimonide.

37. (New) A method for measuring strain, comprising:
applying a constant current to a hybrid semiconductor device comprising an inhomogeneous semiconductor film and an adjacent metal shunt forming an interface therebetween to induce a voltage in the hybrid semiconductor device;
inducing a strain at least at the interface to change a resistance at the interface; and
measuring a change in the voltage that is indicative of the change in the resistance.

38. (New) The method of claim 37, wherein:
the strain causes an extraordinary piezoconductance in the hybrid semiconductor device.